



Report to the Committee on the  
Budget, U.S. Senate

December 2007

# BUDGET ISSUES

## Accrual Budgeting Useful in Certain Areas but Does Not Provide Sufficient Information for Reporting on Our Nation's Longer-Term Fiscal Challenge



G A O

Accountability \* Integrity \* Reliability

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Highlights of [GAO-08-206](#), a report to the Committee on the Budget, U.S. Senate

## Why GAO Did This Study

The federal government's financial condition and fiscal outlook have deteriorated dramatically since 2000. The federal budget has gone from surplus to deficit and the nation's major reported long-term fiscal exposures—a wide range of programs, responsibilities, and activities that either explicitly or implicitly commit the government to future spending—have more than doubled. Current budget processes and measurements do not fully recognize these fiscal exposures until payments are made. Increased information and better incentives to address the long-term consequences of today's policy decisions can help put our nation on a more sound fiscal footing.

Given its interest in accurate and timely information on the U.S. fiscal condition, the Senate Committee on the Budget asked us to update our study of other nations' experiences with accrual budgeting and look at other ways countries have increased attention to their long-term fiscal challenges.

## What GAO Recommends

The Congress should require increased reporting on the long-term budgetary implications of major tax and spending programs. In addition, Congress should explore using accrual budgeting for certain programs to ensure the information affects incentives and budget decision making. Congress should also require periodic reports on fiscal sustainability for the government as a whole.

To view the full product, including the scope and methodology, click on [GAO-08-206](#). For more information, contact Susan J. Irving at (202) 512-9142 or [irvings@gao.gov](mailto:irvings@gao.gov)

## BUDGET ISSUES

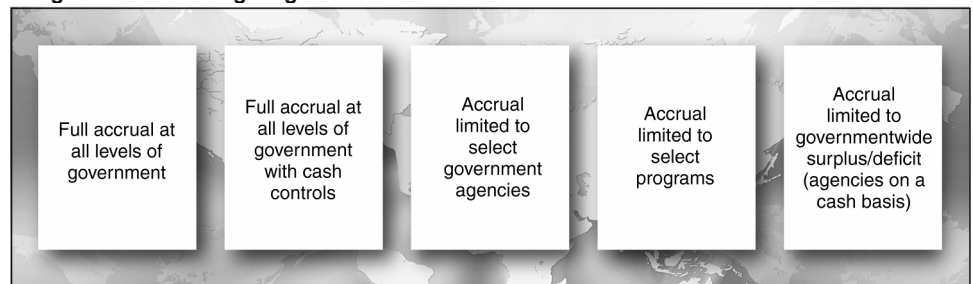
### Accrual Budgeting Useful in Certain Areas but Does Not Provide Sufficient Information for Reporting on Our Nation's Longer-Term Fiscal Challenge

#### What GAO Found

In 2000, GAO reviewed the use of accrual budgeting—or the recording of budgetary costs based on financial accounting concepts—in Australia, Canada, Iceland, the Netherlands, New Zealand, and the United Kingdom. These countries had adopted accrual budgeting more to increase transparency and improve government performance than to increase awareness of long-term fiscal challenges. Accrual budgeting continues to be used in all six countries; Canada and the Netherlands, which use accrual information selectively, considered expanding the use of accruals but thus far have made only limited changes. Since 2000, other countries have considered using accrual budgeting. For example, Denmark and Switzerland began using accrual budgeting on a selective basis. Norway and Sweden, however, rejected accrual budgeting primarily because they believed cash budgeting enables better control over resources.

Countries have taken different approaches in the design of their accrual budgets. The figure below shows the range of approaches used. Regardless of the approach taken, cash information remains important in all the countries for evaluating the government's finances. Other countries' experiences show that accrual budgeting can be useful for recognizing the full costs of certain programs, such as public employee pensions and retiree health, insurance, veterans benefits, and environmental liabilities, that will require future cash resources. However, these other countries do not use accrual budgeting to recognize their long-term fiscal challenges that are primarily driven by public health care and pension programs. Instead, many countries in GAO's study have begun preparing fiscal sustainability reports to help assess these programs in the context of overall sustainability of government finances. European Union members also annually report on longer-term fiscal sustainability.

Range of Accrual Budgeting Use



Source: GAO (PhotoDisc, image).

Although no change in measurement or reporting can replace substantive action to meet our longer-term fiscal challenge, GAO believes that better and more complete information on both the full-cost implications of individual decisions and on fiscal sustainability of the government's finances can help.

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## Abbreviations

EU	European Union
GAGAS	Generally Accepted Government Auditing Standards
GDP	gross domestic product
IPSAS	International Public Sector Accounting Standards
OBEGAL	Operating Balance Excluding Gains and Losses
OBERAC	Operating Balance Excluding Revaluations and Accounting Changes
OECD	Organisation for Economic Co-operation and Development
PBGC	Pension Benefit Guaranty Corporation
SGP	Stability and Growth Pact

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United States Government Accountability Office  
Washington, DC 20548

December 20, 2007

The Honorable Kent Conrad  
Chairman  
The Honorable Judd Gregg  
Ranking Member  
Committee on the Budget  
United States Senate

The federal government's current financial condition and long-term fiscal outlook present enormous challenges to the nation's ability to respond to emerging forces reshaping American society, the United States' place in the world, and the future role of the federal government. Unfortunately, the federal government's financial condition and fiscal outlook are worse than many may understand. In fact, the nation's fiscal condition has deteriorated dramatically since 2000. The federal budget has gone from surplus to deficit and the nation's major reported long-term fiscal exposures—a wide range of programs, responsibilities, and activities that either explicitly or implicitly commit the government to future spending—have more than doubled. Current budget processes and measurements do not fully recognize many of these fiscal exposures until payments are made. Increased information and better incentives to address the longer-term budgetary consequences of today's policy decisions can help put our nation on a more sound fiscal footing.

In 2000, in response to interest in whether accrual budgeting—or the recording of budgetary costs based on financial accounting concepts—would improve budget recognition of certain long-term commitments<sup>1</sup> and so encourage action to address them, we looked at the use of accrual budgeting in Australia, Iceland, New Zealand, and the United Kingdom.<sup>2</sup> We also looked at two other countries—Canada and the Netherlands—that used accrual budgeting more selectively at that time and were considering expanding the use of accrual budgeting. We reported that these countries had adopted accrual budgeting more as part of broader public

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<sup>1</sup>In this report, the term “commitment” is used to mean a promise to provide a good or service. It does not necessarily mean a legally binding obligation unless noted.

<sup>2</sup>GAO, *Accrual Budgeting: Experiences of Other Nations and Implications for the United States*, [GAO/AIMD-00-57](#) (Washington, D.C.: Feb. 18, 2000).

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management reforms to increase transparency and improve government performance rather than as a way of increasing awareness of their longer-term fiscal challenges. None used accrual budgeting for social insurance programs.<sup>3</sup>

We concluded that the current cash- and obligation-based budget<sup>4</sup> in the United States provides equal or better control than full accrual budgeting, but that the United States should consider expanding the use of accrual measurement in the budget to certain areas where it would enhance up-front control, namely federal employee pensions and retiree health, insurance, and environmental liabilities.<sup>5</sup> For these programs, accrual measurement would move budgetary recognition earlier to when benefits are earned or the insured event occurs. However, for most other activities there is not a significant difference between cash and accrual measures. Furthermore, the up-front funding requirement under an obligation-based budget provides policymakers greater control over capital investment.

Since our 2000 report, these nations have not only gained additional experience with accrual budgeting but also have begun using other measures, analyses, and reporting to improve the understanding of broader long-term fiscal sustainability issues. Given your interest in the importance of accurate and timely information on the U.S. fiscal position, you asked us to update our report on the experiences of these countries and look at other ways countries have increased attention to their longer-term fiscal challenges. Reviewing the experience of other countries with accrual budgeting and fiscal sustainability reporting may identify some

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<sup>3</sup>In this report, social insurance programs are generally defined as government programs intended to protect households or individuals against certain social risks including loss of income. These programs typically require payment by the participant (or another party on their behalf) of contributions through payroll taxes or premiums. Social insurance benefits are generally viewed as transfer payments and recorded in the budget as benefits due and payable (accrual basis) or when benefits are paid (cash basis). Transfer payments are benefits provided without requiring the recipient to provide current or future goods or services of equivalent value in return.

<sup>4</sup>In the United States, federal agencies are required to have authority to enter into obligations to make outlays of government funds. Obligations and outlays are usually measured on a cash basis, so we generally refer to the U.S. federal budget as “cash based.” See the background section for more information.

<sup>5</sup>For some areas, such as federal credit programs and some federal employee pension benefits, the U.S. budget already records outlays on an accrual basis rather than a cash basis in order to recognize the full cost of the government’s commitment up front when the commitment is made.

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strategies for focusing more attention on the long-term budgetary implications of the U.S. federal government's current programs and policies.

Specifically, this report examines:

1. Where, how, and why is accrual budgeting used in select Organisation for Economic Co-operation and Development (OECD)<sup>6</sup> countries and how has it changed since 2000?
2. What challenges and limitations have been discovered in the use of accrual budgeting and how have select OECD countries responded to them?
3. What do select OECD countries perceive the effect of accrual budgeting to have been on policy debates, program management, and the allocation of resources?
4. Has accrual budgeting been used to increase awareness of long-term fiscal challenges and, if not, what is used instead?
5. What does this and other GAO work tell us about where and how the increased use of accrual concepts in the budget would be useful and about ways to increase recognition of the long-term implications of today's policy decisions?

We focused primarily on the six countries in our 2000 report:

- Australia,
- Canada,
- Iceland,
- the Netherlands,
- New Zealand, and
- the United Kingdom.

We also did a limited review of two other nations—Denmark and Switzerland—that recently expanded the use of accrual budgeting and two countries—Norway and Sweden—that considered accrual budgeting but decided against it.

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<sup>6</sup>The OECD currently consists of 30 member states that share a commitment to democratic government and the market economy.



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Any analysis of budget processes, measurements, and concepts in other nations must recognize that the role played by legislative bodies in a parliamentary system of government is quite different than the role played by the Congress of the United States, especially in the process of resource allocation. All countries in our study that have adopted accruals have parliamentary systems in which the government is formed by the political party, or coalition of parties, that have the support of a majority of Parliament. Many important decisions that are debated during the annual budget and appropriations process in the Congress of the United States occur in case study countries before the budget is presented to Parliament for approval. The Parliaments in the countries we studied regularly enact the government's budget without amendment; failure to do so may be viewed as a lack of confidence in the government. This difference is likely to influence perspectives on the trade-offs associated with the use of accrual budgeting, particularly in terms of accountability and legislative control.

The work on this report was done from June 2007 through December 2007 in accordance with Generally Accepted Government Auditing Standards (GAGAS). Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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## Results in Brief

Accrual budgeting continues to be used to some extent in all six countries reviewed in 2000. The six countries have taken different approaches in the design of their accrual-based budgets, and all continue to use cash information particularly for evaluating the overall fiscal condition. Since 2000, more OECD countries have expanded the use of accrual measurement in the budget, including Denmark and Switzerland. However, two countries in our study—Canada and the Netherlands—which had considered broader expansions of accrual budgeting, have thus far made only limited changes. Two other countries—Norway and Sweden—also considered adopting accrual budgeting in recent years but decided against it, primarily because they believed the cash budget provides for better control, particularly over capital investment.

When significantly expanding the use of accrual budgeting, there are several common transitional challenges countries initially faced including developing accounting standards for the budget and deciding what assets to value and how to value them. Countries tended to work through these

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issues over time. However, a number of implementation challenges cited in our 2000 report still exist. These challenges illustrate the inherent complexity of using accrual-based measures for managing a nation's resources. For example, accrual-based measures experience volatility due to changes in the value of assets and liabilities or changes in assumptions (e.g., interest rates, inflation, and productivity) used to estimate future payments whether or not there has been a change in the underlying fiscal stance. Management and oversight of noncash expenses<sup>7</sup> were also cited as challenges. These challenges have led some countries to modify their approaches to accrual budgeting and to continue a reliance on cash-based measures for broad fiscal policy making.

Despite these challenges, officials in many of the countries in our 2000 report believe that accrual-based cost information provides better information on the cost of performance than cash-based measures. Accrual budgeting, which recognizes resources as they are used to produce goods and services, provides the full cost of all programs and may allow for better comparisons between different methods of delivering government services. Therefore, accrual budgeting is expected to help program managers achieve efficiencies and better allocate resources. Several countries cited examples of where the provision of accrual-based cost information helped highlight the full cost of programs, such as government employee pensions and insurance, that were ultimately reformed. Although officials said that reform might have occurred eventually, they believe the accrual-based cost information helped spur action.

Accrual budgeting is not used by the countries in our study for recognizing nations' longer-term fiscal challenges that are driven primarily by public pension and health care programs (social insurance) because, like the United States, the countries in our study do not consider future social insurance benefit payments to be explicit liabilities. Instead, many of these other countries have prepared or are preparing reports assessing fiscal sustainability of their nation's finances. The goal of these reports is to increase public awareness and understanding of the long-term fiscal outlook in light of escalating health care cost growth and population aging; to stimulate public and policy debates; and to help policymakers make informed decisions. The countries used several common measures, such

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<sup>7</sup>Noncash expenses are expenses related to services provided but not paid during the year, such as depreciation.

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as cash-flow measures of future revenue and spending and summary measures of fiscal imbalance and fiscal gaps, to assess fiscal sustainability. Each measure provides a different perspective on the nation's long-term financing and each measure has its limitations. Therefore, most countries use more than one measure to assess fiscal sustainability.

Our study of these countries and our own work confirms the need for better information to make trade-offs between individual programs and to increase attention on longer-term fiscal challenges. Despite the challenges that exist in estimating accrual-based cost information, it may be preferable to be approximately right than exactly wrong. The selective use of accrual budgeting in areas where it would enhance up-front control of future cash resources would put programs on a more level playing field and be beneficial. However, to improve the understanding of the broader long-term fiscal challenges, additional measures, analyses, and reporting, including fiscal sustainability reporting, are needed.

As the Comptroller General has said before, our nation is on an imprudent and unsustainable path. Continuing on our current fiscal path would gradually erode, if not suddenly damage, our economy, our standard of living, and ultimately even our domestic tranquility and our national security. Although no change in measurement or reporting can replace substantive action to meet our longer-term fiscal challenge, we believe that increasing the use of accrual-based cost information for budget decisions involving both existing and proposed programs that require significant future cash resources could facilitate consideration of competing demands. At the same time a fiscal sustainability report would provide both the nation's citizens and policymakers with a comprehensive picture of the long-term fiscal condition of the government as a whole.

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## Background

The U.S. federal budget<sup>8</sup> serves as the primary financial plan of the federal government and thus plays a critical role in the decision-making process. Policymakers, managers, and the American people rely on it to frame their understanding of significant choices about the role of the government and to provide them with information to make decisions about individual programs and overall fiscal policy. The budget process helps highlight for

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<sup>8</sup>For this report, the "federal budget" is used broadly to refer to the planning and debate during the federal budget process by both the executive and legislative branches. For an overview of the federal budget process, see GAO, *A Glossary of Terms Used in the Federal Budget Process*, [GAO-05-734SP](#) (Washington, D.C.: September 2005).

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policymakers and the public the overall “cost” of government. Since the budget process also serves as a key point of accountability between policymakers and managers, the way “costs” are measured and reported in the budget can have significant consequences for managerial incentives. The term “cost” has different meanings in the budget and financial statements. In the budget, the term “cost” generally refers to the amount of cash needed during the period. In the financial statements, the term “cost” means the amount of resources used to produce goods or deliver services during the period regardless of when cash is used. Therefore, one goal of accrual budgeting is to report the “full cost” of government services provided during the year.<sup>9</sup> The different methods of reporting (e.g., cash, obligations, or accrual) represent much more than technical means of cost measurement. They reflect fundamental choices about the information and incentives provided by the budget.

Cash-based measurement records receipts and outlays when cash is received or paid, without regard to when the activity occurs that results in revenue being earned, resources being consumed, or liabilities being increased. In comparison, obligation-based budgeting—which is used in the U.S. federal government—focuses on the legal obligations entered into during a period regardless of when cash is paid or received and regardless of when resources acquired are to be received or consumed. Obligation-based budgeting provides an additional level of control over pure cash budgeting by requiring that federal agencies have statutory authority to enter into obligations to make outlays of government funds. With limited exceptions, the amounts to be obligated are measured on a cash or cash-equivalent basis. Therefore, we generally refer to the U.S. federal budget as “cash based.”<sup>10</sup>

In contrast to cash- and obligation-based budgeting, accrual budgeting generally involves aligning budget recognition with the period in which resources are consumed or liabilities increased, rather than when obligations are made or cash flows occur. Although accruals can be measured in a variety of ways, the term accrual budgeting typically has been used in case study countries to refer to the recording of budgetary costs based on concepts in financial accounting standards. Thus, accrual-

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<sup>9</sup>In this report, the term “full cost” is used in the financial reporting sense unless otherwise noted.

<sup>10</sup>For a discussion of the methods for tracking funds in the federal government, see [GAO-05-734SP](#) at app. III, 120–3.

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based budgeting generally provides information similar to that found in a private sector operating statement.

Choices about the appropriate method of budget reporting are complicated by the multiplicity of the budget's uses and users, including policymakers and managers. The federal budget is simultaneously asked to provide full information and appropriate incentives for resource allocation, control over cash, recognition of future commitments, and the monitoring of performance. Given these multiple and potentially competing objectives, choices about the method of budget reporting involve trade-offs. For example, control over spending is greatest if the budget recognizes the full cash cost at the time the decision is made but assessing performance and its cost is generally best supported by accrual-based cost information, which recognizes resources as they are used to produce goods and services. The up-front funding requirement under an obligation-based budget helps ensure policymakers' control over the acquisition of a new building but does not align its cost with its use. Conversely, accrual budgeting better aligns the cost of the building with the periods that benefit from its use, but in its simplest form it does not provide for up-front control over entering a legally binding commitment to purchase the building. Given the necessary trade-offs, the method of budget reporting should be selected to meet the primary decision-making and accountability needs of a governmental system while balancing the needs of multiple users.

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## Cash and Accrual Measures of the Government's Annual Fiscal Condition

The federal government reports both cash and accrual measures of its current finances. The key focus of the policy debate is the unified budget deficit/surplus. With limited exceptions,<sup>11</sup> the unified budget deficit/surplus is the difference between cash receipts and cash outlays for the government as a whole including any Social Security surplus.<sup>12</sup> The

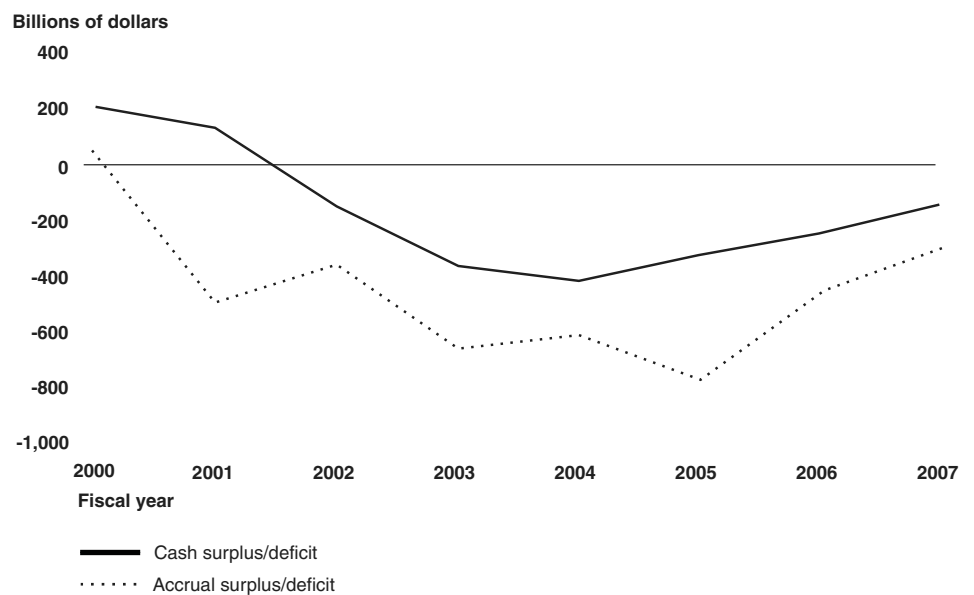
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<sup>11</sup>The budget surplus/deficit includes the outlays for credit programs and certain interest payments measured on an accrual basis. Federal agencies record outlays on an accrual basis for several other items, including some federal employee pensions; however, these outlays do not affect the unified budget deficit because the outlays are intragovernmental—paid by one agency to another.

<sup>12</sup>The unified budget is a comprehensive measure of all federal activities both on-budget and off-budget. The on-budget deficit includes all budgetary accounts other than those designated by law as off-budget. The off-budget accounts are the Postal Service and Social Security trust funds. Because the unified deficit is compatible with the accrual deficit that also includes both on- and off-budget accounts, we focus on the unified budget number.

second measure, the government's net operating cost, is the amount by which costs—as reported on an accrual basis—exceed revenue and is reported in the federal government's financial statements.<sup>13</sup> Figure 1 shows the cash and accrual measures for fiscal years 2000 to 2007.

**Figure 1: Cash and Accrual Measures of Annual Fiscal Position**



Source: Department of the Treasury.

Note: Data from the *Financial Reports of the United States Government*. The fiscal year 2005 accrual results included a significant negative actuarial adjustment, and 2006 included a significant positive adjustment, primarily due to changes in interest rate assumptions used to estimate the veterans compensation liability.

The cash and accrual results are based on the same underlying activities—the differences arise due to the timing of when the costs of certain activities are recognized. As explained earlier, for the cash-based budget deficit, costs are recorded when cash payments are made for goods received or services performed. For the accrual deficit, costs are recognized when goods are used or services are performed regardless of

<sup>13</sup>The consolidated financial statements of the U.S. government are largely on an accrual basis. See Department of the Treasury, *Financial Report of the United States Government*, 2006. GAO is responsible for auditing the financial statements included in the *Financial Report*, but we have been unable to express an opinion on them because the federal government could not demonstrate the reliability of significant portions of the financial statements. Accordingly, amounts taken from the *Financial Report* may not be reliable.

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when cash payments are made. For many program areas, the timing difference is small but for others the timing differences can amount to billions of dollars each year. Differences arise when a cost is accrued (and affects the accrual deficit) in one fiscal year but paid (and affects the cash deficit) in another fiscal year. The following six areas account for the largest differences between cash and accrual deficits:<sup>14</sup>

- civilian employee benefits,
- military employee benefits,
- veterans compensation,
- environmental liabilities (e.g., cleanup and disposal),
- insurance programs, and
- capital assets.

For example, the accrual deficit includes an expense for current employees' pension and other retirement benefits, which are earned during the employee's working years and are part of the annual cost of providing government services but not paid until sometime in the future when the employee retires. The cash budget deficit does not include retirement benefits earned today, but it does reflect payments made to current retirees. (These cash payments reflect past accrued expenses.) The difference between the accrued retirement benefits recognized and cash payments made during the year is the difference between the accrual and cash measures due to employee benefits.

In the year that capital assets such as structures and equipment are purchased, the budget recognizes the full cash cost to provide decision makers with the information and incentives to make efficient decisions at the only time that they can control the cost. Specifically, budget authority for the asset's full cash cost must generally be provided up front before the asset can be purchased. The full cash cost of a capital asset is recorded as an outlay and included in the cash budget deficit when the asset is paid for. However, under the accrual basis of accounting used in the financial statements, the cash cost of the asset is initially recorded on the balance sheet. The cash cost of the asset is then spread over its expected useful life to match the asset's cost with its use. Therefore, each year the accrual deficit only reflects one year's worth of the cash cost, called depreciation expense.

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<sup>14</sup>For a discussion of how the accrual and cash deficits relate to each other, see GAO, *Understanding Similarities and Differences between Accrual and Cash Deficits*, [GAO-07-117SP](#) (Washington, D.C.: December 2006).

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We have previously noted that while both cash and accrual measures of the government's overall finances are informative, neither measure alone provides a full picture.<sup>15</sup> For example, the unified budget deficit provides information on borrowing needs and current cash flow, but does not measure the amount of resources used to provide goods or services in the current year. While the accrual deficit provides information on resources used in the current year, it does not provide information on how much the government has to borrow in the current year to finance government activities. Nor does it provide information about the timing of payments and receipts, which can be very important. Therefore, just as investors need income statements, statements of cash flow, and balance sheets to understand a business's financial condition, both cash and accrual measures are important for understanding the government's financial condition.

Although a more complete picture of the government's fiscal stance today and over time comes from looking at both the cash and accrual measures than from looking at either alone, even the two together do not provide sufficient information on our future fiscal challenges. In addition to considering the federal government's current financial condition, it is critical to look at other measures of the long-term fiscal outlook of the federal government. While there are various ways to consider and assess the long-term fiscal outlook, any analysis should include more than just the obligations and costs recognized in the budget and financial statements. It should take account of the implicit promises embedded in current policy and the timing of these longer-term obligations and commitments in relation to the resources available under various assumptions. For example, while the cash and accrual measures showed improvement between fiscal year 2005 and fiscal year 2007, our long-term fiscal outlook did not change. In fact, the U.S. government's total reported liabilities, net social insurance commitments, and other fiscal exposures continue to grow and total more than \$52 trillion, representing approximately four times the nation's total output, or gross domestic product (GDP), in fiscal year 2007, up from about \$20 trillion, or two times GDP in fiscal year 2000 (see table 1).

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<sup>15</sup> [GAO-07-117SP](#).



**Table 1: Major Reported Fiscal Exposures**

Dollars in trillions			
	2000	2007	Percent increase
<b>Explicit liabilities</b>	<b>6.9</b>	<b>10.8</b>	<b>57</b>
Publicly held debt			
Military and civilian pensions and retiree health			
Other			
<b>Commitments and contingencies</b>	<b>0.5</b>	<b>1.1</b>	<b>97</b>
For example, PBGC, <sup>a</sup> undelivered orders			
<b>Implicit exposures</b>	<b>13.0</b>	<b>40.8</b>	<b>213</b>
Future Social Security benefits	3.8	6.8	
Future Medicare Part A benefits	2.7	12.3	
Future Medicare Part B benefits	6.5	13.4	
Future Medicare Part D benefits		8.4	
<b>Total</b>	<b>20.4</b>	<b>52.7</b>	<b>158</b>

Source: Department of the Treasury.

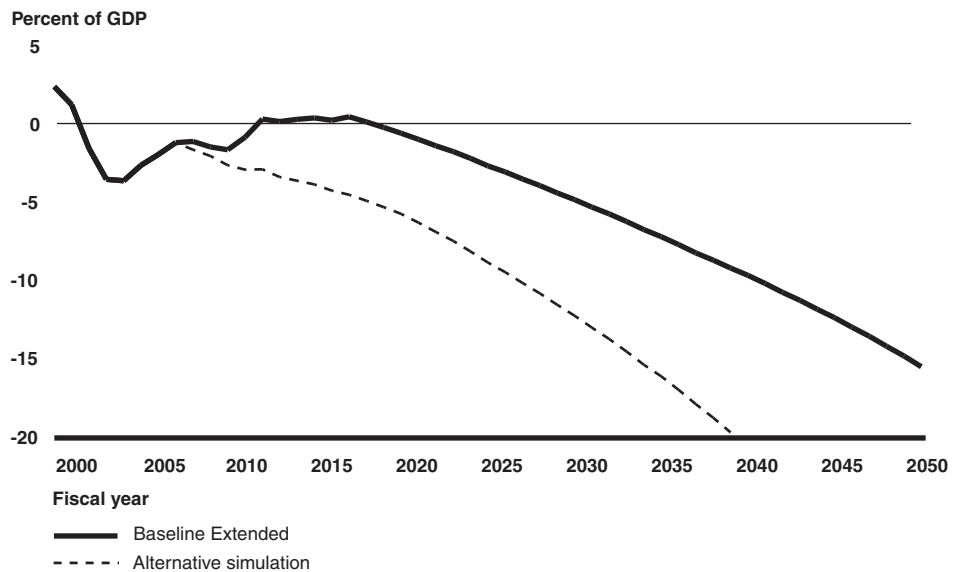
Note: Data from 2000 and 2007 *Financial Reports of the United States Government*. Estimates for Social Security and Medicare are at present value as of January 1 of each year and all other data are as of September 30. Totals and percent increases may not add due to rounding.

<sup>a</sup>Pension Benefit Guaranty Corporation.

Another way to assess the U.S. government's long-term fiscal outlook and the sustainability of federal programs is to run simulations of future revenues and spending for all federal programs, based on a continuation of current or proposed policy. Long-term simulations by GAO, the Congressional Budget Office, and others show that we face large and growing structural deficits driven primarily by rising health care costs and known demographic trends. As shown in figure 2, GAO's long-term simulations—which are neither forecasts nor predictions—continue to show ever-increasing long-term deficits resulting in a federal debt level that ultimately spirals out of control. The timing of deficits and the resulting debt buildup varies depending on the assumptions used, but under either optimistic (“Baseline Extended”) or more realistic assumptions (“Alternative simulation”), the federal government's current fiscal policy is unsustainable.<sup>16</sup>

<sup>16</sup>For more information on the assumptions underlying our simulations, see GAO, *The Nation's Long-Term Fiscal Outlook: August 2007 Update*, [GAO-07-1261R](#) (Washington, D.C.: Sept. 28, 2007).

**Figure 2: Unified Surpluses and Deficits as a Share of GDP under Alternative Fiscal Policy Simulations**



Source: GAO.

Note: The data are from GAO's August 2007 analysis in [GAO-07-1261R](#).

One summary measure of the long-term fiscal challenge is called “the fiscal gap.” The fiscal gap is the amount of spending reduction or tax increases that would be needed today to meet some future debt target. To keep debt as a share of GDP at or below today’s ratio under our Alternative simulation would require spending cuts or tax increases equal to 7.5 percent of the entire economy each year over the next 75 years, or a total of about \$54 trillion in present value terms. To put this in perspective, closing the gap would require an immediate and permanent increase in federal tax revenues of more than 40 percent or an equivalent reduction in federal program spending (i.e., in all spending except for interest on the debt held by the public, which cannot be directly controlled).

As demonstrated by these various measures, our nation is on an unsustainable fiscal path. This path increasingly will constrain our ability to address emerging and unexpected budgetary needs and will increase the burdens that will be faced by future generations. Since at its heart the budget debate is about the allocation of limited resources, the budget process can and should play a key role in helping to address our long-term fiscal challenge.

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## Although Certain OECD Countries Continue to Use Accrual Budgeting, Objectives and Approaches Vary Significantly

The six countries reviewed in 2000 continue to use accrual budgeting. However, two countries that were considering broader expansions of accrual budgeting have thus far made only limited changes. Although each country's budgeting framework has unique features, the six countries have taken one of two broad approaches toward accrual budgeting:

- One approach uses accruals for most or all items in the budget primarily to support broader efforts to improve government performance.
- A second approach more selectively uses accrual information in areas where it increases recognition of future cash requirements related to services provided during the year that are not fully recognized in a cash-based budget.

Regardless of which approach is used, cash information remains important in all the countries to evaluate overall fiscal position. None of the countries reviewed include anticipated future payments for social insurance programs (namely public pensions and health services) in the current year's budget measure. Social insurance programs are generally viewed as transfer payments rather than liabilities. Transfer payments are benefits provided without requiring the recipient to provide current or future goods or services of equivalent value in return.

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## Accrual Budgeting Continues to Be Used in the Six Countries Studied but Two Did Not Expand Their Use as Previously Anticipated

Since 2000, three countries—Australia, New Zealand, and Iceland—have continued to use the accrual budgeting frameworks in place in 2000. In 2000, we reported that the United Kingdom was planning to implement an accrual-based budgeting framework, called Resource Accounting and Budgeting. After Parliament passed the necessary legislation in 2000, the United Kingdom implemented resource accounting and budgeting in 2001. The United Kingdom has continued to make some modifications to its framework, including introduction of controls over cash.

Although two countries—the Netherlands and Canada—have considered broader expansions of accrual budgeting since 2000, thus far they have made only limited changes. In the Netherlands only budgets for some government agencies are on an accrual basis and the governmentwide budget remains on a modified cash basis. The Dutch government decided against moving the governmentwide budget to an accrual basis in 2001. Although the Dutch cabinet thought that the accrual-based system added value at the agencies where it had been implemented, it thought the cost of implementing accrual budgeting governmentwide, including changing

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information systems, developing accounting standards, and changing regulations would outweigh any advantages.

In 2003 Canada significantly expanded the use of accruals in the governmentwide budget, but the information used to support appropriations (called the Main Estimates) and the appropriations themselves remain largely on a cash basis.<sup>17</sup> Since the 1990s, there has been debate within the Canadian government concerning the appropriate application of accruals. The Canadian Office of the Auditor General and a key committee in Parliament, the House of Commons Committee on Public Accounts, have advocated preparing the Main Estimates on a full accrual basis. The current government agrees in principle that accrual measurement can be useful but considers this to be a complex issue that requires study and consultation with parliamentarians. After consultation with parliamentarians, the current government plans to present a model for a new accrual-based appropriations process in 2008.

Although the use of accrual budgeting in other major industrialized countries has grown, it is not currently the norm. Since 2000, the number of OECD countries that report using accruals at least in part has increased.<sup>18</sup> For example, as noted previously, Denmark and Switzerland recently expanded the use of accruals in the budget. Some countries also report using both cash- and accrual-based accounting in the budget. However, the majority of OECD countries reported using either cash- or obligation-based budgeting or both.

The extent to which countries in our study used accrual budgeting varied—from full accrual at all levels of government to more limited use at either the agency or program level. Figure 3 illustrates the broad range of use.

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<sup>17</sup>Canada does provide departments with appropriations for the accrued cost of employee pensions.

<sup>18</sup>Based on our analysis of OECD surveys conducted in 2000, 2003, and 2006. The most recent survey results can be found at <http://webnet4.oecd.org/budgeting/Budgeting.aspx> (as of Oct. 3, 2007). We were unable to validate some of the responses to the surveys and there were changes in the response categories over time; therefore our use of the survey results is limited.

**Figure 3: Range of Accrual Budgeting Use**



Source: GAO (PhotoDisc, image).

The extent to which countries use accrual budgeting generally reflects the objectives to be satisfied. Countries that switched to accrual budgeting primarily as a way of providing better cost and performance information for decision making generally used accruals to a greater extent in the budget, as illustrated by the first two approaches—full accrual at all levels of government. In general, these countries also sought to put financial reporting and budgeting on a consistent basis. Countries that switched to accrual budgeting primarily as a way of increasing recognition of future cash requirements related to services provided during the year generally use it only for selected programs where accruals enhance up-front control and provide better information for decision making (e.g., loans and government employee pensions); this approach is similar to the United States’ current use of accruals. Regardless of the approach, cash information remains important. Most countries in our study continue to use cash-based measures for broad fiscal policy decisions. The following section describes each country’s objective and approach in more detail.

### Most Countries Use Accruals Primarily to Increase Transparency and Improve Government Performance

Four countries—Australia, New Zealand, the Netherlands, and the United Kingdom—primarily use accrual budgeting to support broader efforts to improve the efficiency and performance of the public sector. Compared to cash-based budgeting, accruals are thought to provide better cost information and to encourage better management of government assets and liabilities. Among this group of countries, however, there is significant variation in the scope of accrual budgeting as well as the linkage between performance goals and appropriations.

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## Australia and New Zealand

Since the 1990s, Australia and New Zealand have extensively used accruals in conjunction with output-based budgeting.<sup>19</sup> The introduction of accrual budgeting in both countries was a key element of broader reforms meant to improve the efficiency and performance of the public sector. Reformers in both countries thought that accruals would provide better cost information and better management incentives than the previous cash-based budgeting framework. Reformers also thought it was important to have a consistent framework for budgeting and financial reporting to allow actual performance to be compared with expectations.

Accrual budgeting in both countries is also intended to provide funding for the full cost of departments' activities. Australia and New Zealand departments receive funding for noncash expenses, such as depreciation of existing assets, accrued employee pension benefits,<sup>20</sup> and the estimated future costs of environmental cleanup resulting from government activities. Reformers in both countries thought that appropriating on a full-cost basis created compelling incentives for department managers to focus on the full cost of their department's activities as well as manage noncash expenses.

One important feature of Australia's and New Zealand's budgeting frameworks is that departmental appropriations are closely linked to outcomes and outputs, and department executives are given considerable flexibility in managing their department's finances, provided that the department meets its performance goals. It is thought that giving department executives more flexibility generally contributes to better performance. In comparison to the United States, the appropriations acts in Australia and New Zealand place less emphasis on how departments allocate their funding among different types of expenses. Nevertheless, two key departments, the Treasury in New Zealand and the Department of Finance and Administration in Australia, do centrally review and must approve departmental plans for major capital purchases.

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<sup>19</sup> Australia transitioned to accrual budgeting in financial year 1999–2000; New Zealand transitioned to accrual budgeting on the departmental level in 1992 and 1994 for the governmentwide budget.

<sup>20</sup> Australia and New Zealand government departments are generally not responsible for funding health benefits for current or retired government employees. Australia's and New Zealand's governments provide health care for all citizens, although some citizens purchase supplementary private health insurance.

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## The Netherlands

The Netherlands has used accrual budgeting in select government agencies primarily as a tool for improving performance. In the early 1990s, the government allowed a limited number of government entities (called agencies) to operate as if they were private sector contractors by adopting a results-oriented performance-management model, including accrual accounting and budgeting. Under the Dutch approach, the agencies are effectively service providers for the central government's ministries. These agencies receive funding for the accrual-based cost from the ministries that they service. For example, although the Ministry of Justice is appropriated funds on a cash basis to buy services from the Prison Service, the Prison Service charges the ministry the full cost of the services it provides. The number of government entities participating in this program has increased from 22 in 2000 to approximately 40 in mid 2007. However, while the agencies budgeting on an accrual basis represent about 60 percent of the government in terms of employees, they are a small part of the government's overall budget since the majority of the Dutch government's expenditures are spent on transfer payments, which continue to be budgeted on a cash basis.

## The United Kingdom

The United Kingdom implemented what it calls resource budgeting for financial year 2001–2002. The United Kingdom's approach makes less use of the Australia–New Zealand form of performance-based budgeting and imposes tighter controls on cash than the Australia and New Zealand approaches. The United Kingdom's Parliament votes both cash and "resources" (i.e., the full accrual-based cost of a department's services). The resource budget recognizes such noncash expenses as accrued employee pension benefits as well as depreciation of existing assets but limits the ability of departments to use funds appropriated for noncash items to fund current spending. Treasury officials from the United Kingdom told us that in practice this near-cash limit on departmental spending is the focus of budgetary planning. Treasury officials also noted that although departments have public service agreements that include performance targets, the United Kingdom has not really used outcome-based budgeting.

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## Some Countries Use Accrual Measures Selectively in Areas Where It Enhances Transparency of the Government's Future Cash Requirements

A second approach has been to use accrual information more selectively for programs or areas where it highlights annual costs that are not fully recognized in the cash-based budget. Iceland and Canada generally have taken this approach.

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## Iceland

Since 1998, Iceland has budgeted on an accrual basis except for capital expenditures, which remain on a cash basis. Iceland's approach was designed primarily to improve transparency and accountability in its budget. The only areas with significant differences between cash- and accrual-based estimates are government employee pensions, interest, and tax revenue. Iceland also uses accrual budgeting for loan programs. Accrual budgeting in Iceland has had only a limited effect on department-level budgets for two reasons. First, capital budgeting remains on a cash basis. Second, the oversight and administration of employee pensions, tax revenue, and the subsidy costs for loans are located in the Finance Ministry, not individual departments. Consequently, for most Icelandic departments, there are only minor differences between cash- and accrual-based estimates for the department's operating budgets.

## Canada

The federal government of Canada currently uses both accrual and cash for budgeting purposes. The governmentwide budget is largely on an accrual basis; the information used to support appropriations (called the Main Estimates) and the appropriations themselves remain largely on a cash basis; certain areas such as the future pensions for current employees are measured on an accrual basis.<sup>21</sup> Canada's current government has been considering moving the Main Estimates and appropriations to a full accrual basis. Since the 1990s, the Canadian Office of the Auditor General and a key parliamentary committee, the House of Commons Committee on Public Accounts, have recommended moving appropriations to an accrual basis so that managers would make more informed decisions about the use of resources. The Office of the Auditor General and the committee think it is important to use the same accounting standards in the budget and the Estimates. The current government agrees that moving to accrual-based budget and appropriations may have benefits. Officials from Canada's Finance Department and Treasury Board Secretariat told us that it was important to study the experience of other governments with accruals before designing a new, accrual-based appropriations process. The officials also said the current government was consulting with members of Parliament and plans to present a model for Parliament's consideration in 2008.

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<sup>21</sup>The budget provides the government's overall fiscal plan for revenues and expenses and details spending proposals for the government's new initiatives. The Main Estimates are detailed plans for all government expenditures by department and agency. Appropriations are the legislation necessary to implement the Main Estimates.



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## Cash Information Remains Important, Particularly for Monitoring a Country's Fiscal Position

Regardless of the approach taken in use of accrual budgeting, all of the countries consider cash information to be important, particularly for monitoring the country's fiscal position even where fiscal indicators are accrual based. Three of the countries—Australia, the Netherlands, and the United Kingdom—calculate the governmentwide surplus/deficit on either a cash or near-cash basis. In the other three countries—Iceland, New Zealand, and Canada—aggregate fiscal indicators are largely accrual based, but officials we spoke with said that cash information continues to be important in evaluating fiscal policy.

Although Australia extensively uses accruals for departmental appropriations, Australian officials said that a key measure for policymakers is the country's surplus measured on a cash basis.<sup>22</sup> This is due in part to a goal of running cash-based surpluses over the business cycle to contribute to national savings. Both the Netherlands and the United Kingdom, as members of the European Union (EU), are required to report the net lending or borrowing requirement, which officials described as a near-cash number.<sup>23</sup> Officials from the United Kingdom also said that cash information is important because the current government has pledged to avoid borrowing to finance current expenditures and to keep net debt at prudent levels. New Zealand makes several adjustments to the accrual-based operating balance to remove items that do not affect the underlying financing of government and must pay attention to its cash position to ensure it meets its debt-to-GDP target.

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## Several Other OECD Countries Have Considered Accrual Budgeting since 2000 but Reached Different Decisions

Since 2000, at least two additional OECD countries—Denmark and Switzerland—have expanded the use of accruals in the budget without moving to full accrual budgeting. Switzerland has recently expanded accrual measurement as part of broader reforms to improve government financial reporting. However, Switzerland's governmentwide surplus/deficit continues to be calculated on a cash basis and some government assets, such as defense assets, are not capitalized. Beginning

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<sup>22</sup>Unusual transactions such as large receipts from asset sales are excluded from the cash surplus in Australia.

<sup>23</sup>Net borrowing (or lending) is a national accounting concept and is similar to the unified budget surplus or deficit. Unlike accruals, the national accounts in the United Kingdom recognize pensions paid in the current year and do not recognize costs associated with "provisions," which are cases where there is uncertainty about whether a liability exists, the amount to settle it, or the timing of the payments. The United Kingdom's national accounts also record the cost of single-use military equipment in the year purchased rather than depreciating them.

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in 2007, Denmark moved departmental operating budgets and associated capital spending to an accrual basis, primarily to support efforts to improve the performance of government departments. However, Denmark does not accrue capital spending on infrastructure, and both grants and transfer payments are measured on a cash basis.

Sweden and Norway considered moving toward accrual budgeting but decided against it. Between 1999 and 2003 Sweden developed a plan to move from cash to accrual budgeting but in 2004 chose not to implement these plans. Swedish officials said that the government was concerned that accrual budgeting would diminish control of cash spending, potentially undermine fiscal discipline and lead to bigger investments, principally for infrastructure and war equipment. Norway went through a similar decision process. In 2003, a government-appointed committee recommended Norway move to full accrual budgeting, but the government at that time argued that the fiscal policy role of the budget is better served by cash-based appropriations and that the cash system enables better control of investments. Parliament agreed. However, Norway is testing accrual accounting at 10 agencies to achieve purposes similar to those cited by other countries—namely to provide better cost information; to establish a baseline for benchmarking costs, both between government agencies and in relation to private organizations; and to generate more complete information on the assets and liabilities of the government.

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## Countries Faced a Number of Common Challenges Inherent to Accrual Reporting That Led to Some Changes in Their Approach

Any significant expansion in the use of accruals creates a number of transitional challenges, including how to develop accounting standards for the budget and deciding what assets to value and how to value them. Beyond transitional issues however, there are several challenges inherent to accrual budgeting, as we noted in 2000. These challenges illustrate the inherent complexity of using accrual-based numbers for managing a nation's resources and led to some modifications in countries' use of accrual reporting in the budget, such as reliance on more cash-based measures of the overall budget.

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## Countries Have Generally Addressed Challenges Related to Developing Accounting Standards to Be Used in the Budget, Including Asset Identification and Valuation

Developing accounting standards to use in the budget and deciding what public assets to value and how to value them were initial challenges for countries moving to accrual budgeting. These took time to work out and refinements continue. Some countries in our study sought to put the government's financial reporting and budgeting on the same basis and to make them comparable to the private sector. In all, three of the six countries in our 2000 report and Denmark said that the technical standards used in the budget were substantially based on private-sector accounting standards. Only Canada and Switzerland said the technical standards were based on public sector accounting standards. Three countries—Australia, the Netherlands, and the United Kingdom—reported that the standards used for aggregate measures were based on national accounting standards (similar to the national income and product accounts in the United States) set by an international organization (e.g., the International Monetary Fund's Government Finance Statistics or the European System of Accounts).

Some countries in our study thought that adopting standards and concepts developed by independent bodies was important. While both cash and accrual accounting can be subject to gaming, some believe that accrual accounting in particular opens up the opportunity for manipulation. Three countries responded that a commission of experts outside of government developed the standards. Other countries, however, said that although their standards were based on independent standards, the finance ministry or bureau of statistics has the ultimate responsibility for developing standards. In these countries, accounting standards were generally not adopted intact from an independent entity. For example, Switzerland's accrual budgeting system is designed to be closely aligned with the international public sector accounting standards (IPSAS), but there were some deviations from IPSAS for constitutional reasons such as compliance with the cash-based balanced budget requirement. Also, for practical reasons, Switzerland does not capitalize defense investments, which is required under IPSAS.

Besides developing the accounting standards to be used in the budget, a key challenge when switching to accrual budgeting, particularly for countries that choose to treat capital on an accrual basis (i.e., to capitalize assets and record them on the balance sheet) and provide funding for noncash depreciation costs, is to ensure that the recorded value of the capital asset is as accurate as possible. The value of the capital asset is used to calculate annual depreciation costs and in turn fund future capital acquisitions (replacements). If an agency overvalued its assets, it could be difficult to reduce the level of assets once accrual budgeting is

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implemented because the excess value represents a source of funding for the agency in the form of depreciation. On the flipside, if assets were undervalued, they may not provide good information on the cost of maintaining or replacing the asset. In 2004, for example, the New Zealand government purchased the nation's rail network for only NZ\$1. Officials with whom we spoke said the NZ\$1 value did not yield good information about annual depreciation (maintenance) costs. Therefore the New Zealand government revalued the network at NZ\$10.3 billion in 2006; this revaluation led to an increase in the New Zealand government's net worth. More importantly, the annual operating balance used in the budget now reflects the associated depreciation costs.

In Australia, the government thought that capitalizing assets would lead to a better understanding of what is owned and what would be needed in the future. However, an Australian official said departments still request supplementary funding to replace old assets. An Australian official said that this may be because some departments were not fully funded for all capitalized assets in their opening balance sheets during the move to accrual budgets. It could also be because new asset purchases are not identical to the assets they replace or because agencies did not have sufficient assets to carry out their goals in the first place.

Asset identification and valuation were cumbersome and time-consuming efforts for the countries that chose to capitalize assets. Indeed, one of the reasons that Iceland decided against capitalizing assets was the difficulty it would have faced identifying and agreeing on the asset values. Valuing assets poses special problems in the public sector since it owns unique assets such as heritage assets (e.g., museums and national parks) and defense assets (e.g., weapons and tanks). By nature, heritage assets are generally not marketable. Their cost is often not determinable or relevant to their significance and they may have very long life cycles (e.g., hundreds of years). Although the recognition issues associated with heritage assets are challenging, these assets are generally not very significant in terms of the overall effect on fiscal finances. As a result, valuing heritage assets may be seen as not worth the effort. Indeed, of all the countries we reviewed, only Australia and New Zealand capitalize all assets. The other countries exclude unique government assets such as highways, bridges, national parks, historical buildings, and military assets.

The most common approaches for valuing assets are historical cost and fair value. (Fair value is usually the same as market value; in the absence of reliable market values, replacement cost is often used.) Five of seven countries in our study that measure capital assets on an accrual basis use

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fair or market value. Only two—Canada and Denmark—use historical cost. Use of market value relies on professional judgments to assess values and the values can fluctuate sharply between reporting periods. Although historical cost is based on a verifiable acquisition price and does not fluctuate, the reported amounts may not reflect the current value of the asset. Furthermore, it is often very difficult to estimate the original costs of government assets that are hundreds of years old or for which cost records have not been maintained.

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### Developing Reliable Financial Data Is Seen as a Prerequisite to Accrual Budgeting in Some Countries

We have reported that enhancing the use of performance and “full-cost” information in budgeting is a multifaceted challenge that must build on reliable cost and performance data, among other things.<sup>24</sup> Reliable financial information was also viewed as important to have before moving to accrual budgeting in some countries we reviewed. For example, in the Netherlands, an agency must receive a “clean audit” or an unqualified audit opinion for the year prior to moving to accrual budgeting and at least 6 months must have been spent in a trial run of the accrual accounting system. Other criteria must also be met before moving to accrual-based budgeting and receiving the associated flexibilities including being able to describe and measure the agency’s products and services. Before moving to accrual budgeting in New Zealand, a department had to define its broad classes of outputs, develop an accrual-based system capable of monthly and annual reporting, and develop a cost-allocation system to allocate all input costs including depreciation and overhead to outputs and provide assurance it had an adequate level of internal controls. There was not, however, a requirement for an unqualified opinion for the agency.

Accrual budgeting can also lead to improvements in financial information. Auditable financial accounts were not a prerequisite for moving to accrual budgeting in the United Kingdom. When the United Kingdom moved to accrual budgeting in 2001–2002, the government had 16 accounts for central government departments with “qualified” opinions.<sup>25</sup> However, since the introduction of accrual budgeting, the United Kingdom reported that the number of qualified accounts had declined and the timeliness of

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<sup>24</sup>GAO, *Performance Budgeting: Efforts to Restructure Budgets to Better Align Resources with Performance*, [GAO-05-117SP](#) (Washington, D.C.: February 2005).

<sup>25</sup>A “qualified” opinion means that the auditor disagreed with the treatment or presentation of financial information.

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financial reporting, which maximizes the usefulness of the information to managers, Parliament, and other stakeholders, has improved.

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### Volatility in Aggregate Accrual Measures Can Lead to Use of More Cash-Like Measures

Both cash and accrual measures are subject to volatility. Cash accounting may not be useful for measuring cost because spikes in receipts or payments can cause swings in the apparent “cost” of a program or activity. For example, if a program purchases a large amount of equipment in one year, it will appear costly under cash accounting, but under accrual accounting, only a proportion of the equipment’s cost in the form of depreciation would be shown in that year. Accrual measures experience volatility for other reasons such as changes in the value of assets and liabilities or changes in assumptions (e.g., interest rates, inflation, and productivity) used to estimate future payments.

Because the accrual-based operating results can be volatile due to events outside the government’s control, New Zealand generally does not use it as a measure of the government’s short-term fiscal stewardship. For example, under New Zealand’s accrual-based accounting standards, most assets are revalued at least every 3 years. New Zealand uses fair value, which is usually the same as market value when there is an active market. As noted above, market values tend to fluctuate between reporting periods. The changing market values can cause swings in the reported accrual-based operating results because such changes are reflected as revenue or cost in the year revalued. Therefore, changes in operating results may reflect not a fundamental change to the government’s finances but rather changes in the value of assets or liabilities that do not affect the government’s financing in the current period. Fluctuations can also result from annual changes in the value of liabilities when there are deviations between actual experience and the actuarial assumptions used or changes in actuarial assumptions. The liabilities for New Zealand’s government pension and insurance programs, for example, fluctuate from year to year partly due to changes in the underlying assumptions such as interest rates and inflation.<sup>26</sup> To deal with this, the New Zealand Treasury removes revaluations and other movements that do not reflect the underlying financing of government from its operating balance. It is this measure—

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<sup>26</sup>Such fluctuations also occur in the U.S. government’s financial statements. For example, in the United States, changes in the interest rate assumptions used to estimate the value of future benefits led to wide fluctuations in the veterans compensation liability. The liability increased by \$105.6 billion in 2003, decreased by \$30 billion in 2004, and then increased by \$197.8 billion in 2005.

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the Operating Balance Excluding Revaluations and Accounting Changes (OBERAC)—that has been the focus of policy debates in New Zealand since about 2001.

More recently the New Zealand Treasury shifted its focus to a new measure—Operating Balance Excluding Gains and Losses (OBEGAL). Gains and losses can result when the value of an asset or liability differs from the value booked on the balance sheet. If the government sells an asset and the sales price equals book value, there is no gain or loss, because a cash inflow equal to book value is the exchange of one asset for another of equal recorded value. However, if the sales price is more or less than the book value of the property, the difference is reflected as a gain or loss. New Zealand set up a fund to partially prefund future superannuation expenses.<sup>27</sup> This fund reports gains and losses on its investments. Because the current government wishes to retain the investment returns in the fund, beginning with the 2007 budget the government has shifted its focus to the OBEGAL to ensure the government is meeting its fiscal objectives. New Zealand said that by excluding net gains and losses the OBEGAL gives a more direct indication of the underlying stewardship of the government.

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### Complexity of Accrual-Based Accounting and Use of Cash-Based Fiscal Targets Makes It Difficult for Policymakers to Focus on Accrual Measures

Accrual accounting is inherently more complex than cash-based accounting, which is like managing a checkbook. One Australian official noted that using accrual measures can be challenging because many cabinet ministers and members of Parliament are trained in professional fields other than finance and accounting and may be more familiar with cash budgeting.

Focusing on accrual-based numbers can be difficult given the existence of cash-based fiscal policy targets. For example, several countries—Canada, New Zealand, and the United Kingdom—have fiscal policy targets that target the amount the country can borrow; borrowing (or debt) is based on cash measures. Also, while accrual numbers are used at the agency level in Australia, Australia has had a goal of running cash-based surpluses over the business cycle. This is due in part to a long-standing goal in Australia

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<sup>27</sup>New Zealand Superannuation is financial assistance for people 65 years of age or older who have lived in New Zealand for a certain amount of time. It is not based on income. This entitlement is recognized in the budget when due and payable.

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to improve national savings. At the time of our study,<sup>28</sup> Australia's Treasurer primarily focused on the cash-based fiscal position to show the government's effect on national savings.<sup>29</sup> Agency managers therefore have an obligation to manage both the cash and accrual implications of their resource use.

New Zealand also pays attention to its cash position. New Zealand's current fiscal policy goal is to maintain gross debt at around 20 percent of GDP. This means that New Zealand's cash position must be such that cash receipts equal cash outlays excluding interest expense.<sup>30</sup> It also means the accrual-based operating surplus must be sufficient to cover investments—cash needed today but not expensed until the future.

Cash information is still used at both the overall fiscal policy level and department level in the United Kingdom. The current United Kingdom government has pledged to avoid borrowing to finance current expenditures and maintain public debt at a prudent level. Both of the government's fiscal targets are measured on a near-cash basis. Consequently, United Kingdom Treasury officials said that Treasury has imposed limits on departmental cash spending because spending directly affects the country's cash-based fiscal position.

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## Concerns about Management and Oversight of Noncash Expenses Can Lead to Increased Use of Cash Controls

Different countries have taken different approaches to managing noncash expenses, particularly in regard to capital assets. In Australia and New Zealand, cash is appropriated for the full accrual amounts, including noncash items such as depreciation for existing assets. Agencies are expected to replenish their current assets from funding provided for depreciation and they have the funding to do so (subject to the oversight discussed below). The full cost of government is the focus of the operating budget rather than the immediate cash requirement. The downside of this approach is that control of cash and capital acquisitions to replace assets

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<sup>28</sup> A new government was sworn in on December 3, 2007, just before issuance of this report. This statement refers to the government in power prior to December 3.

<sup>29</sup> Australia's underlying cash balance is the difference between revenues and expenditures measured on a cash basis and excludes unusual transactions such as large receipts from asset sales.

<sup>30</sup> This rule of thumb holds precisely if the interest rate on debt equals the rate of GDP growth. If, however, the interest rate exceeds GDP growth, cash receipts must exceed cash outlays excluding interest in order to keep the debt-GDP ratio constant. Conversely, New Zealand can run cash deficits if GDP growth exceeds the interest rate on debt.



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can become challenging. If an agency is given cash to fund depreciation expense, there is a risk that agencies may use the funds to cover other expenses. Similarly, Parliament may lose control over the acquisition of capital assets since it will have funded them through depreciation provided in previous years.

To address these concerns, countries have implemented cash management policies and specific controls over capital acquisitions. For example, like Australia and New Zealand, the United Kingdom initially provided funding for the full cost of programs, outputs, or outcomes with the thought that it would generate efficiencies. Over time, however, United Kingdom Treasury officials said they became concerned that some departments were shifting noncash expenses to cash expenses, which adversely affected the government's borrowing requirement. As a result, the United Kingdom has imposed controls on cash. Departments' budgets now include both the amount of the full accrual costs and the cash required. The Parliament approves both numbers. This not only helps ensure that department spending is in-line with the government's fiscal policy goals but also reinforces Parliament's control over capital acquisitions.

Australia also reported that it is considering a model that would give the Parliament both cash and accrual information in a form that better meets its needs and preferences. On the basis of reports by the Australian National Audit Office and others that departments could potentially use funds provided for depreciation of existing assets to fund noncapital acquisitions or that agencies are not appropriately using the funds to repair or replace existing assets, the Australian Senate expressed concern about the transparency of funding for depreciation and the potential loss of control over new capital purchases.<sup>31</sup> The Senate recommended that the government consider reporting and budgeting for capital expenditures separately, including a subdivision of expenditures between asset replacement (i.e., the depreciation component) and asset expansion.

All countries we reviewed that accrue capital investments have a process in place to facilitate oversight over capital. While most of these countries include depreciation of existing assets in operating budgets, most also preserve up-front control of capital by approving capital purchases above a certain threshold. For example, in New Zealand, all capital purchases

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<sup>31</sup>In Australia, both houses of Parliament approve all appropriations, but the Senate has more authority to review and amend appropriations for new government activities.

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above NZ\$15 million must be approved by the cabinet. In Australia, any capital purchase above A\$10 million in any one year must have a business case prepared and must be included in the budget proposal to be submitted for government approval. The United Kingdom Treasury reviews departmental capital plans. In the Netherlands, capital purchases by agencies are made through loans provided by the Ministry of Finance. The Ministry of Finance has to approve the level of loans per agency.

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### Some Governments Have Had to Address Parliamentary Concerns

As previously noted, all of the countries in our study are parliamentary systems in which the political party that controls the current government has primary control over budgetary matters. However, as noted above, in some countries Parliaments have expressed general concerns that the budget presentations are confusing under accrual budgeting. Several countries in our study use more than one method of budget accounting, which can be confusing for Parliament and other users. In Australia, for example, where two accounting standards are currently used in the budget, the Senate has recommended the adoption of a single agreed-upon accounting standard. In Canada, the government reports the budget surplus/deficit on an accrual basis but department-level appropriations remain on a cash basis. Canadian audit officials we spoke with said the Parliament wants the department-level appropriations prepared on an accrual basis in part because the two different measures and crosswalks are confusing. Canada is considering moving department-level budgets to an accrual basis in order to provide consistent financial information for all levels of government and a better linkage between the budget and appropriations.

In the United Kingdom, some members of Parliament said it was unclear how the accrual-based appropriations related to the nation's fiscal goals, which are largely cash based. As a result, the government is undertaking an "alignment project" to better align budget accounts with the government's two fiscal rules to (1) avoid borrowing to finance current expenditures and (2) keep net debt at prudent levels.

Australia's Senate expressed concern about reduced transparency of some information and said that the budget could be improved if data were presented at the program level (in addition to outcomes). The Australian government official we spoke with said that the government already provides the Parliament and public with extensive information on both the full costs of government activities and the performance of agencies. It was not clear to the official, however, that providing more detailed information would improve the quality and usefulness of information considering the

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administrative workload involved and the potential for creating more “red tape” for managers. The Australian official thought more concise and relevant reports might be more useful than more information.

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## Accrual Cost Information Helped Inform Some Debates That Led to Improvements in Fiscal Condition

Despite the inherent challenges, our six case study countries have continued to use accrual budgeting and additional countries have adopted accrual budgeting since 2000. These countries view having accrual-based cost information available to program managers for resource allocation decisions as outweighing the associated difficulties. In several countries, officials we spoke with said they believe accrual budgeting provides better information on the cost of annual operations and performance than cash-based budgeting particularly in regard to the use of capital assets and programs that incur costs that are not paid in cash today.

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## Accrual Budgeting May Provide Better Cost Information than Cash Budgeting for Resource Allocation Decisions

In general, countries said that accrual-based cost information contributes to improved resource allocation and program management decisions. Under cash budgeting, a program’s budget shows only the immediate cash outlay and not the cash that will have to be paid in the future for the service provided today. Accrual budgeting, which recognizes resources as they are used to produce goods and services, provides the full cost of all programs and may allow for better comparisons between different methods of delivering government services.

New Zealand officials, in particular, believe the cost information provided by accrual-based budgeting has led to efficiencies and better resource allocation decisions. New Zealand attributed the cost information provided by accrual budgeting as helping them identify where and how to cut spending to put the country on a more sound fiscal footing in the early 1990s. Several of the countries have attributed specific improvements on the departmental level to accrual budgeting. For example, under accrual accounting, the cost of a loan includes the subsidy cost—the cost of lending below market rates and provisions for bad debt. When New Zealand recently made student loans interest free, the cost of the subsidy was taken into consideration during the policy debate. The United Kingdom also reported the more complete information on student loans directly affects lending decisions at the Department of Education and Employment.<sup>32</sup>

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<sup>32</sup> Credit programs are already recorded on an accrual basis in the U.S. budget.

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In several of the countries, one perceived advantage of accruals was to facilitate comparisons between the public sector and private sector. Accrual-based cost estimates could be used to “benchmark,” or compare the cost of existing public service providers to alternative providers in either the public or private sectors. The OECD reported in 2005 that both agencies and core ministries in the Netherlands were content with the results from accrual budgeting at the agencies.<sup>33</sup> Agencies, which now receive a budget for the full cost of their activities, like the flexibilities under accrual budgeting, while core ministries value the output and price information they receive from the agencies. The ministries also reported that agencies’ use of accrual budgeting enables them to consider the performance of the agencies relative to alternatives (i.e., decentralization to subnational government or contracting out). At the same time, the availability of the alternatives enabled ministries to put more pressure on agencies to improve cost efficiency and to reduce prices. New Zealand, however, reported that there is little evidence available that similar types of outputs are compared or benchmarked in a way that was thought desirable at the time the reforms were initiated. Concerns about the usefulness and robustness of cost accounting systems continue and there remains a concern that the specification of outputs is not at a sufficient standard to ensure high-quality government performance.

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### Accrual Budgeting Attributed with Helping to Control or Manage Certain Long-Term Commitments

In several case study countries, accrual budgeting helped policymakers recognize the full cost of certain programs at an earlier point and make decisions that limited future cash requirements. For example, as reported in 2000, both New Zealand and Iceland credited accrual budgeting with highlighting the longer-term budgetary consequences associated with public sector employee pension programs. In Iceland, accrual budgeting showed the consequences of wage negotiations on future public sector employee pension outlays. The full costs of these agreements were not fully realized by the public until the adoption of accrual budgeting. At that time, Icelandic officials told us that there was no longer public support for decisions that were so costly in the long term. Similarly, New Zealand officials decided to discontinue the defined benefit public employee pension program after pension liabilities were recognized on the balance sheet and the expense incurred was included in the budget.

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<sup>33</sup>Dirk-Jan Kraan, “Typically Dutch,” *OECD Journal on Budgeting*, vol. 4, no. 4 (2005).

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Since 2000, reforms aimed at putting government employee pensions on a more sustainable footing were enacted in Australia and the United Kingdom. In Australia, unfunded pension liabilities for government employees are currently the largest liability on Australia's balance sheet (which is part of its budget documents). To cover this liability, the Australian government recently established an investment fund called the "Future Fund" to help pay future pension payments.<sup>34</sup> Government employee pensions in the United Kingdom were also reformed. In 2007, the United Kingdom government raised the pension age to 65 for employees hired beginning in July 2007 and limited the government's contribution to pensions to 20 percent. United Kingdom officials acknowledged that there was already recognition that the program needed significant reform before the introduction of accrual measures, but said accrual budgeting helped highlight the full cost of pension liabilities and forced the debate on pension reform to happen sooner.

Accrual budgeting has also changed the information available for insurance programs, veterans benefits, and environmental liabilities. As reported in 2000, New Zealand officials attributed reforms of the Accident Compensation Corporation program to recognizing the liability and expenses from providing accident coverage in the budget. Recognizing the estimated future outlays associated with current accidents reduced budget surpluses by NZ\$500 million. At that time, officials attributed New Zealand's decision to raise premiums and add surcharges largely to this inclusion of program costs in the budget. Also, in 2002 New Zealand ratified the Kyoto Protocols committing to reduce net emissions of greenhouse gases over the 2008–2012 period. Consistent with financial accounting standards, New Zealand recognized a liability for the obligation created by this commitment. New Zealand officials attributed accrual accounting with helping them focus on ways to manage environmental liabilities.

Canadian officials attributed accrual information with leading to recent changes in veterans benefits. The use of accrual accounting requires Veterans Affairs Canada to record the full cost of veteran benefits in the year they are earned rather than paid. Therefore when considering changes to veterans benefits, Veterans Affairs Canada considered the effect of future cash flows in discounted terms. Initial results indicated

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<sup>34</sup>For background information on the Future Fund, see [http://www.futurefund.gov.au/about\\_the\\_future\\_fund/outline.html](http://www.futurefund.gov.au/about_the_future_fund/outline.html).

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that the planned changes to veteran benefits represented a substantial expense for the year. As a result, Veterans Affairs Canada modified the admissibility requirements limiting the financial effect of the changes.

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## Countries Use Other Methods to Increase Awareness of Greatest Long-Term Fiscal Challenges

Accrual budgeting was not used to increase awareness of long-term fiscal challenges that are primarily driven by old-age public pensions and healthcare programs. None of the countries in our study include future social insurance payments in the budget. Like the United States, the other countries do not consider future social insurance payments to be liabilities. Instead, in recent years, several countries have begun reporting on the sustainability of the government's overall finances over longer-term horizons, given demographic and fiscal trends.

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## Aging-Related Expenditures Are Major Drivers of Long-Term Fiscal Challenges in Other Countries

Aging is a worldwide phenomenon. One of the key challenges that all developed economies are facing over the coming decades is demographic change. This demographic shift—driven by increased life expectancies, falling fertility rates, and the retirement of the baby boom generation—will place increased pressure on government budgets (i.e., public pensions and health care). For example, by 2047, a quarter of Australia's population is projected to be aged 65 and over—nearly double the current proportion. Similarly, by 2050, New Zealand projects that the number of people over 65 is expected to grow almost threefold, while those 85 and over will grow sixfold. Similar trends hold for the other countries we studied.

Although public pension benefits are a major driver, the most challenging aspect of the long-term fiscal outlook in many of the countries we studied—as in the United States—is health care spending. Health spending is expected to increase significantly over the next 40 years due to population aging, new medical technologies, new drugs, and other factors. For example, Australia projects that health care spending as a share of GDP will nearly double by 2046–2047. Similarly, the United Kingdom projects that its health spending will increase faster than other types of spending—from around 7½ percent of GDP in 2005–2006 to around 10 percent of GDP by 2055–2056. New Zealand projects a rise in the ratio of health spending to GDP of 6.6 percentage points between 2005 and 2050 resulting in health spending of about 12 percent of GDP. Similar trends are projected in the other countries we reviewed.

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## Long-Term Fiscal Sustainability Reports Used by Many Countries to Raise Awareness of Long-Term Fiscal Challenges

In recent years, many countries in our study have started preparing long-term fiscal sustainability reports. Frequently cited reasons for this are

- to improve fiscal transparency and provide supplemental information to the budget;
- to increase public awareness and understanding of the long-term fiscal outlook;
- to stimulate public and policy debates; and
- to help policymakers make informed decisions.

These reports go beyond the effects of individual pension and health care programs to show the effect of these programs on the government budget as a whole. Unlike accrual or cash budgeting, which are intended to provide annual cost information, fiscal sustainability reporting provides a framework for understanding the government's long-term fiscal condition, including the interaction of federal programs, and whether the government's current programs and policies are sustainable. In fiscal sustainability reports, countries measure both the effect of current policy on the government's fiscal condition and the extent of policy changes necessary to achieve a desired level of sustainability. These countries hope that a greater understanding of the profound changes they will experience in the decades ahead will help stimulate policy debates and public discussions that will assist them in making fiscally sound decisions for current and future generations and in achieving high and stable rates of long-term economic growth.

Fiscal sustainability is generally described by countries as the government's ability to manage its finances so it can meet its spending commitments now and in the future. A sustainable fiscal policy would encourage investment and allow for stable economic growth so that future generations would not bear a tax or debt burden for services provided to the current generation. An unsustainable condition exists when demographic and other factors are projected to place significant pressures on future generations and government finances over the long term and result in a growing imbalance between revenues and expenditures.

Four of six case study countries produce reports on long-term (i.e., more than 10 years) fiscal sustainability. The Netherlands first issued a report on the long term in 2000. Both the United Kingdom and Australia followed, issuing their first reports in 2002. New Zealand issued its first report in

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2006. Of our case study countries, only Canada and Iceland currently do not issue long-term fiscal sustainability reports.<sup>35</sup> However, Canada is planning to issue a comprehensive fiscal sustainability and intergenerational report in the near future. Of our limited review countries, Norway reported that it has traditionally provided Parliament reports on long-term budget projections as well as fiscal sustainability analyses. Further, Switzerland is planning to issue a long-term fiscal sustainability report in early 2008.<sup>36</sup>

The European Commission is also increasing its focus on the fiscal sustainability of the EU member states, including the Netherlands, United Kingdom, Denmark, and Sweden, as part of the Stability and Growth Pact (SGP). The SGP, an agreement by EU member states on how to conduct, facilitate, and maintain their Economic and Monetary Union requirements, requires member states to submit Stability or Convergence Reports, which are used by the European Council to survey and assess the member's public finances.<sup>37</sup> The guidelines for the content of these reports were changed in 2005 to include a chapter with long-term projections of public finances and information on the country's strategies to ensure the sustainability of public finances. The European Commission uses this information to annually assess and report on the long-term sustainability of all EU members, including consideration of quantitative measures (e.g., primary balance, debt-to-GDP) and qualitative considerations of other factors, such as structural reforms undertaken and reliability of the projections. Such reporting includes an assessment of the sustainability of member countries' finances, policy guidance to EU members to improve sustainability, and discussion of the effect of significant policy changes on the sustainability of member countries' finances. The Commission

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<sup>35</sup>Canada issued a report called *The Sustainable Development Strategy 2007–2009*, which discusses strategies and progress relating to broad fiscal, social, and environmental goals. This report is required by the 1995 amendment to the Auditor General Act. The report has been prepared every 3 years since 1997 and is available at <http://www.fin.gc.ca/toce/2006/sds2007e.html>.

<sup>36</sup>Both Canada and Switzerland are federal systems and are planning to report on fiscal sustainability for all levels of government—not just the central government.

<sup>37</sup>The European Commission requires member states that have adopted the euro (e.g., the Netherlands) to submit stability program updates annually that cover at least the preceding year, the current year, and the next 3 years. Member states that have not adopted the EU currency (e.g., Denmark and Sweden) prepare a “Convergence Report” annually that is similar to the Stability Report but includes more information on monetary policy objectives.



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released its first comprehensive assessment on the long-term sustainability of public finances in October 2006.<sup>38</sup>

Whether a government will be able to meet its commitments when they arise in the future may depend on how well it reduces its debt today so the burden does not fall entirely to future generations. Countries may have different assumptions about what is sustainable but one aim is to keep debt at “prudent levels.” Several of our case study countries have set debt-to-GDP targets in their efforts to address fiscal sustainability issues. For example, Canada wants to reduce its net debt (i.e., financial liabilities less financial assets) for all levels of government to zero by 2021. Similarly, New Zealand’s current objective is to reduce debt to around 20 percent of GDP over the next decade. The United Kingdom, under its sustainable investment rule, requires that public sector net debt is to be maintained below 40 percent of GDP over the economic cycle. Australia and the Netherlands have no explicit debt level targets, although the Netherlands is subject to EU limits on general government debt.<sup>39</sup>

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### Several Common Measures Are Used to Assess Fiscal Sustainability

The countries studied used a number of measures to assess the fiscal sustainability of their policies. Common approaches to assessing fiscal sustainability include cash-flow measures of revenue and spending and public debt as a percent of GDP as well as summary measures of fiscal imbalance and fiscal gap (see table 2). Each measure provides a different perspective on the nation’s long-term financing. Cash-flow measures are useful for showing the timing of the problem and the key drivers, while measures such as the fiscal imbalance or fiscal gap are useful for showing the size of action needed to achieve fiscal sustainability. Each measure has limitations by itself and presents an incomplete picture. Therefore, most countries use more than one measure to assess fiscal sustainability.

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<sup>38</sup>Economic Policy Committee and European Commission, “The impact of ageing on public expenditure: projections for the EU25 Member States on pensions, health-care, long-term care, education and unemployment transfers (2004-2050),” *European Economy, Special Reports*, no. 1 (Luxembourg, 2006).

<sup>39</sup>An important condition for successfully moving to a single European currency is that economies of the participating countries should converge toward each other and remain healthy. Therefore, members of the EU are expected to avoid excessive budgetary deficits (i.e., above 3 percent) and to ensure their debt-to-GDP ratio stays within the reference value limit of 60 percent.

**Table 2: Common Fiscal Indicators Used in Other Countries**

Measure	Used by	Description
<b>Indicators that show the timing of long-term problem but not overall size</b>		
Future annual cash flows (as a percent of GDP)	Australia Netherlands New Zealand United Kingdom	Illustrates the timing of and future trends in spending components, total spending, and revenue and their relationship over time.
Future primary balance (as a percent of GDP)	Australia Netherlands United Kingdom	The primary balance excludes net interest payments from underlying cash balances. Primary balances offer useful parameters for the part of the budget that is controllable.
Future annual projections of public debt (as a percent of GDP)	Australia Netherlands New Zealand United Kingdom	Illustrates the relationship between public debt and GDP over time. The debt-to-GDP ratio provides an indication of a nation's ability to repay its public debt by comparing the size of its debt to the size of its economy.
Future primary operating balance	New Zealand	Illustrates the relationship between future revenues and expenses excluding financing costs (measured on an accrual basis) over time.
<b>Indicators that show the size of long-term problem but not timing</b>		
Fiscal gap (as a percent of GDP) <sup>a</sup>	Australia Norway United Kingdom	Illustrates the change in fiscal policy needed to achieve a particular debt target at some point in the future. This change can be calculated in terms of the adjustment needed today or at some point in the future.
Fiscal imbalance or intertemporal budget constraint (as a percent of GDP) <sup>a</sup>	Netherlands United Kingdom	The fiscal imbalance is similar to the fiscal gap except that it is more stringent; it assumes that all government debt must be repaid by the end of the period. It illustrates whether and to what extent the government's future revenues cover future expenditures and public debt.

Source: GAO.

<sup>a</sup>These measures can be presented as either percents of GDP or in present value dollars, however, case study countries focused on the percents of GDP.

Two measures—the fiscal gap and fiscal imbalance—show the size of the problem in terms of action needed to meet a particular budget constraint. Changes in these measures over time are useful for showing improvement or deterioration in the overall fiscal condition. The fiscal gap shows the change in revenue or noninterest spending needed immediately and maintained every year to achieve a particular debt target at some point in the future. The fiscal imbalance (or intertemporal budget constraint) is similar to the fiscal gap but the calculation assumes all current debt is paid off by the end of the period. These summary measures can also be calculated in terms of the adjustment needed in the future if adjustment is delayed (which would increase its size). The change in policy can be in the form of adjustments to taxes, spending, or both. A positive fiscal gap or imbalance implies that fiscal policy should be tightened (i.e., spending cut

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or taxes raised) while a negative fiscal gap or imbalance implies that fiscal policy could be loosened (i.e., spending increased or taxes reduced). A fiscal gap or imbalance implies potential harm to future generations if action to make public finances sustainable is deferred thus requiring more budgetary actions (or higher interest costs) in the future than today. It should be noted that a fiscal gap or imbalance of zero over a finite period does not mean that current fiscal policy is sustainable forever. For example, debt could still be rising faster than GDP at the end of the period. Another limitation to these summary measures is that by definition they do not provide information on timing of receipts and outlays, which is important.

Most of the countries we studied used share of GDP measures rather than present value dollar measures. In part this is to avoid the situation in which a small change in the discount rate assumption leads to large swings in the dollar-based sustainability measures. Present value dollar measures are highly sensitive to assumptions about the discount rate. An increase of 0.5 percentage points in the discount rate used to calculate the U.S. fiscal gap reduces the present value of the fiscal gap from \$54.3 trillion to \$47.7 trillion; in contrast such a change results in a smaller proportional change to the gap as a share of GDP from 7.5 to 7.3 percent.<sup>40</sup> Also, since the numbers can be so large, it may be difficult for policymakers and the general public to understand without placing the numbers in context of the resources available in the economy to finance the fiscal gap.

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## Reports Stem from Law and Political Commitments

Fiscal sustainability reports are required by law in two countries—Australia and New Zealand.<sup>41</sup> The legislation underpinning both countries' fiscal sustainability reports does not dictate in detail what measures should be included in the report. Rather, the law specifies only the frequency of reporting (i.e., every 4 years for New Zealand and every 5 years for Australia), the years to be covered, and the overall goal. Both Australia and New Zealand are required to assess the long-term sustainability of government finances over a 40-year horizon. Switzerland is required by law and an accompanying regulation to issue a sustainability report periodically, but at least every 4 years.

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<sup>40</sup>Under GAO's Alternative simulation that is based on recent trends and policy preferences. For more information on this simulation, see [GAO-07-1261R](#).

<sup>41</sup>In Australia the legislation requiring the report is the Charter of Budget Honesty Act of 1998 and in New Zealand the Public Finance Act, as amended in 2004.

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Neither the Netherlands' nor the United Kingdom's reports are required by law. Instead, the reports stem from political commitments of the current government. The Netherlands prepared its first report in 2000 and reported again in 2006. In the United Kingdom the current government made a political commitment to annually report on the long-term fiscal challenges as part of the current government's fiscal framework and has prepared reports annually since 2002. Canada's upcoming report also stems from a commitment made by the current government.<sup>42</sup> A drawback of not having any legal or legislative requirement for the report is that future governments may or may not continue what the current government started.

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### Selection of Time Horizon Is Important

The size of a nation's fiscal gap or fiscal imbalance will depend on the time period chosen. Even if a particular sustainability condition is satisfied over the chosen period, there may still be fiscal challenges further out. Extending the time period can partially address this limitation, but it increases uncertainty. Most of the case study countries that prepare fiscal sustainability reports cover the next 40 to 50 years. However, the Netherlands report goes out through 2100. The United Kingdom calculates the intertemporal budget constraint over an infinite time horizon, which poses a high degree of uncertainty. Choosing the horizon for the fiscal gap or imbalance calculations therefore involves a trade-off in that it should be long enough to capture all the major future budgetary developments but also short enough to minimize uncertainty. It may be best to present these measures over a range of horizons.

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### Countries Use Sensitivity Analysis to Deal with Uncertainty

As with any long-term projection, uncertainty is an issue. To deal with the uncertainty of projections, countries have done sensitivity analysis. For example, the United Kingdom performed a sensitivity analysis using different assumptions for productivity growth and interest rates. The United Kingdom found that the fiscal gap was robust to changes in productivity growth, meaning that the required policy action changed little. However, the fiscal gap was more sensitive to changes in the interest rate assumption. For example, in the United Kingdom, an increase in the interest rate assumption from 2.5 percent to 3.0 percent increases the

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<sup>42</sup>See Department of Finance Canada, *Budget 2007* (Mar. 19, 2007), p. 155, which can be downloaded from <http://www.fin.gc.ca/access/budinfoe.html>.

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fiscal gap for the 50-year period by 50 percent from 0.5 percent to 0.75 percent of GDP.

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**In Some Countries, There Are Indications That the Long-Term Report Is Affecting Nearer-Term Decisions**

Sustainability requirements are important when setting short- and medium-term policy targets. The sooner countries act to put their governments on a more sustainable footing, the better. Acting sooner rather than later permits changes to be phased in more gradually and gives those affected time to adjust to the changes. Citizens can adjust their savings now to prepare for retirement. In the Netherlands, a medium-term fiscal target has been set based on the information presented in the sustainability report. The current government has explicitly linked expenditure ceilings and revenue targets to attaining a structural fiscal surplus of 1 percent of GDP at the end of 2011, which the Netherlands Bureau of Economic Policy Analysis has estimated is needed for public finances to be sustainable given the impending population aging.<sup>43</sup> In addition a study group recommended that the adjustments should be introduced gradually so that they are bearable for all generations.<sup>44</sup>

According to New Zealand officials, its fiscal sustainability report shows that long-term demographic pressures will make it increasingly hard to meet fiscal objectives and therefore policy adjustments will be required. Recognizing that small changes made now will help to prevent making big changes later on, officials said the report has encouraged and enabled greater consideration of long-term implications of new policy initiatives in the budget process. New Zealand intends to link departments' annual Statements of Intent to long-term projections. Under this approach, departmental objectives will have to be modified or justified to meet the long-term objectives.

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<sup>43</sup>See Netherlands Bureau of Economic Policy Analysis, *Ageing and the Sustainability of Dutch Public Finances* (2006).

<sup>44</sup>See Government of Netherlands, *Ageing and Sustainability, Twelfth Report by the Study Group on the Budget Margin* (Jun. 22, 2006).

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## Although Accrual Budgeting Can Help in Certain Areas, It Does Not Provide Sufficient Information to Understand Longer-Term Fiscal Sustainability Issues

Before implementing accrual budgeting some countries were experiencing moderate to large deficits. Some countries' dependence on trade and foreign borrowing led to concerns that increased deficits could lead to rising interest rates and devaluation of the currency, and ultimately a financial crisis. As a result, fiscal discipline was necessary. Accrual budgeting was adopted as part of larger reforms to improve transparency, accountability, and government performance. The United States faces long-term fiscal challenges that, absent reforms, could have adverse effects in the form of higher interest rates, reduced investment, and more expensive imports ultimately threatening our nation's well-being.

The range of approaches used by countries in our study illustrate that accrual budgeting need not be viewed as a "one size fits all" choice. The experiences of countries in our study show that the switch to accrual budgeting was most beneficial for programs where cash- or obligations-based accounting did not recognize the full program cost up front. As we stated in 2000 and in other GAO reports, increased accrual information in certain areas of the budget—insurance, environmental liabilities, and federal employee pensions and retiree health<sup>45</sup>—can help the Congress and the President better recognize the long-term budgetary consequences of today's operations and help prevent these areas from becoming long-term issues. However, accrual budgeting raises significant challenges for the management and oversight of capital purchases and noncash expenses, especially depreciation. Many of our case study countries implemented additional controls to maintain up-front control over resources within their accrual budget frameworks. Indeed, in the U.S. system of government where the Congress has the "power of the purse," maintaining control over resources is important.

While cost and performance information provided under accrual budgeting can be useful, this information must be reliable if budget decisions are to be based on it. We have reported that the financial management systems at the majority of federal agencies are still unable routinely to produce reliable, useful, and timely financial information.<sup>46</sup>

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<sup>45</sup>For civilian employees hired since 1984 and personnel in military service after October 1, 1984, the full cost of pension benefits is recognized in the budget at the department level as they are earned. Also, since 2001 the full cost of retiree health benefits for military retirees eligible for Medicare is also recognized in the budget. However, the remainder of federal pension and health benefits needs to be addressed. The federal budget currently recognizes only about 40 percent of the cost of pensions for civilians hired before 1984.

<sup>46</sup>See GAO's Auditor's Report in the 2006 *Financial Report of the United States Government* (Washington, D.C.: Dec. 15, 2006).

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Until there is better financial information, a switch to full accrual budgeting may be premature. As we reported in a previous report on U.S. agencies' efforts to restructure their budgets to better capture the full cost of performance, the use of full-cost information in budget decisions may reflect rather than drive the development of good cost information in government.<sup>47</sup>

Further, challenges exist in estimating accrual-based cost information for some areas, including veterans compensation, federal employee pensions and retiree health, insurance, and environmental liabilities, that require a significant amount of the government's future cash resources. For example, estimates of future outlays for pensions or veterans compensation depend on assumptions of future wages, inflation, and interest rates that are inherently uncertain and subject to volatility. Trends in health care costs and utilization underlying estimates of federal employee postretirement health benefits have also been volatile. The estimated cleanup costs of the government's hazardous waste are another area where the accrued expenses may not be based on reliable estimates. Not all environmental liabilities have been identified and cleanup and disposal technologies are not currently available for all sites. However, in areas such as these, it may be preferable to be approximately right than exactly wrong. Failure to pay attention to programs that require future cash resources can further mortgage our children's future.

Although accrual budgeting can provide more information about annual operations that require future cash resources, it does not provide sufficient information to understand broader long-term fiscal sustainability. An accrual budget does not include costs associated with future government operations and thus would not help recognize some of our greatest long-term fiscal challenges—related to Social Security, Medicare, and Medicaid. A growing trend in other countries is to develop reports on fiscal sustainability that evaluate the fiscal condition of not only the key drivers of the nation's long-term fiscal outlook but government as a whole. Fiscal sustainability reports that show future revenue and outlays for social insurance programs and the interrelationship of these programs with all federal government programs would provide a comprehensive analysis of the nation's fiscal path and the extent to which future budgetary resources would be sufficient to sustain public services and meet obligations as they come due. By highlighting the trade-offs between

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<sup>47</sup> [GAO-05-117SP](#).

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all federal programs competing for federal resources, such a report would improve policymakers' understanding of the tough choices that will have to be made to ensure future generations do not bear an unfair tax or debt burden for services provided to current generations.

Most countries recognize the need for various measures of fiscal position, including the projected debt-to-GDP ratios and fiscal gap measures. Since no single measure or concept can provide policymakers with all the information necessary to make prudent fiscal policy decisions, it is necessary to use a range of measures or concepts that show both the size of the problem and the timing of when action is needed.

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## Conclusions

This study and the deterioration of the nation's financial condition and fiscal outlook since 2000 confirm our view that the Congress should consider requiring increased information on the long-term budget implications of current and proposed policies on both the spending and tax sides of the budget. In addition, the selective use of accrual budgeting for programs that require future cash resources related to services provided during the year would provide increased information and incentives to manage these long-term commitments. While the countries in our study have found accrual-based information useful for improving managerial decision making, many continue to use cash-based information for broad fiscal policy decisions. This suggests that accrual measures may be useful supplements rather than substitutes of our current cash- and obligations-based budget. Presenting accrual information alongside cash-based budget numbers, particularly in areas where it would enhance up-front control of budgetary resources would put programs on a more level playing field and be useful to policymakers both when debating current programs and when considering new legislation.

Since accrual-based budgeting would not provide policymakers with information about our nation's largest fiscal challenges—Social Security, Medicare, and Medicaid—fiscal sustainability reporting could help fill this void. The reports could include both long-term cash-flow projections and summary fiscal gap measures for the whole of government that would show both the timing and overall size of the nation's fiscal challenges.

Accrual budgeting and fiscal sustainability reporting are only means to an end; neither can change decisions in and of itself. The change in measurement used in the budget provides policymakers and program managers with different information, but the political values and instincts of policymakers may not change. While recognizing fuller costs could help



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inform policymakers of the need to reform, it will require action on their part to address them. Any expansion of accrual-based concepts in the budget or increased reporting requirements would need to be accompanied by a commitment to fiscal discipline and political will.

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## Matter for Congressional Consideration

To increase awareness and understanding of the long-term budgetary implications of current and proposed policies for the budget, the Congress should require increased information on major tax and spending proposals. In addition, the Congress should consider requiring increased reporting of accrual-based cost information alongside cash-based budget numbers for both existing and proposed programs where accrual-based cost information includes significant future cash resource requirements that are not yet reflected in the cash-based budget. Such programs include veterans compensation, federal employee pensions and retiree health, insurance, and environmental liabilities. To ensure that the information affects incentives and budgetary decisions, the Congress could explore further use of accrual-based budgeting for these programs.

Regardless of what is decided about the information and incentives for individual programs, the Congress should require periodic reports on fiscal sustainability for the government as a whole. Such reports would help increase awareness of the longer-term fiscal challenges facing the nation in light of our aging population and rising health care costs as well as the range of federal responsibilities, programs, and activities that may explicitly or implicitly commit the government to future spending.

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We are sending copies of this report to interested parties. Copies will also be sent to others upon request. In addition, the report will be available at no charge on the GAO Web site at <http://www.gao.gov>. Please contact Susan Irving at (202) 512-9142 or [irvings@gao.gov](mailto:irvings@gao.gov) if you have any questions about this report. Key contributors are listed in appendix II.



Susan J. Irving  
Director, Federal Budget Analysis  
Strategic Issues

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# Appendix I: Objectives, Scope, and Methodology

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To update the findings of our 2000 report, we examined (1) where, how, and why accrual budgeting is used in select Organisation for Economic Co-operation and Development (OECD) countries and how it has changed since 2000; (2) what challenges and limitations were discovered and how select OECD countries responded to them; (3) what select OECD countries perceived the effect to have been on policy debates, program management, and the allocation of resources; (4) whether accrual budgeting has been used to increase awareness of long-term fiscal challenges and, if not, what is used instead; and (5) what the experience of select OECD countries and other GAO work tell us about where and how the increased use of accrual concepts in the budget would be useful and ways to increase the recognition of long-term budgetary implications of policy decisions.

To address these objectives, we primarily focused on the six countries in the 2000 GAO report:

- Australia,
- Canada,
- Iceland,
- the Netherlands,
- New Zealand, and
- the United Kingdom.

We also did a limited review of two other nations—Denmark and Switzerland—that have recently expanded the use of accrual measures in the budget. Since these countries may not provide a complete picture of the potential limitations or the use of alternative ways to increase the focus on long-term fiscal challenges, we also looked at two countries—Norway and Sweden—that considered expanding the use of accrual measurement in the budget but decided against it, to understand why.

We reviewed budget publications and used a set of questions to gather information on how and why accrual concepts are used in the budget in the selected countries and how this has changed since 2000. For context, we also reviewed the results of a recent survey done by the OECD on budgeting practices in all OECD countries and compared to older survey results to understand general trends in the use of accrual budgeting over time. To identify factors that facilitated accrual budgeting; strategies for addressing commonly cited implementation challenges; and how and where accrual has or has not changed the budget debate, we primarily focused on the six countries studied in 2000. We interviewed (by e-mail, telephone, and videoconferencing) officials from the budget and national

audit offices in select countries and reviewed official budget documents and related literature to gather information on the challenges and limitations of accrual budgeting; how the use of accruals in the budget has affected policy debates, resource allocation decisions, and program management; and other approaches used to address long-term fiscal challenges. We did not interview parliamentary officials or staff or program managers. The information on foreign laws in this report does not reflect our independent legal analysis, but is based on interviews and secondary sources. We identified key themes from the experience of other nations, reviewed past GAO work, and considered the differences between other nations and the United States to identify useful insights about how to use more accrual-based or other information to inform budget debates.

The experience of any one OECD country is not generalizable to other countries. In analyzing other countries' experiences and identifying useful insights for the United States, it is important to consider the constitutional differences between Parliament in parliamentary systems of government and the Congress of the United States, especially in the role each legislature plays in the national budget process. The U.S. Congress is an independent and separate, but coequal, branch of the national government with the constitutional prerogative to control federal spending and resource allocation. Many important decisions that are debated during the annual budget and appropriations process in the United States occur in case study countries before the budget is presented to Parliament for approval. Also, most case study countries generally deal with the approval of obligations through agency or bureaucratic controls whereas in the United States congressional approval (i.e., "budget authority") is required before federal agencies can obligate funds. Further, most case study countries used purely cash reporting for budgeting before adopting accrual budgeting. In contrast, the United States' obligation-based budgeting already captures many obligations not apparent in a purely cash system. These differences are likely to influence perspectives on the trade-offs associated with the use of accrual budgeting, particularly in terms of accountability and legislative control.

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# Appendix II: GAO Contact and Staff Acknowledgments

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## GAO Contact

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